

ABSTRACT

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Compositions with synergistic anti-inflammatory effects in inflammatory diseases resulting from activation and consequent degranulation of mast cells and followed by secretion of inflammatory biomolecules from the activated mast cells, composed of a heavily sulfated, non-bovine proteoglycan such as shark cartilage chondroitin sulfate C, and one or more of a hexosamine sulfate such as D-glucosamine sulfate, a flavone such as quercetin, an unrefined kernel olive oil that increases absorption of these compositions in various routes of administration, S-adenosylmethionine, a histamine-1 receptor antagonist, a histamine-3 receptor agonist, an antagonist of the actions of CRH, caffeine, and a polyamine.

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